PATENT COOPERATION TREATY

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see form PCT/ISA/220		INTERNATION	EN OPINION OF THE AL SEARCHING AUTHORITY CT Rule 43 <i>bis.</i> 1)
		Date of mailing (day/month/year) see	form PCT/ISA/210 (second sheet)
Applicant's or agent's file reference see form PCT/ISA/220 International application No. International filing date PCT/IB2005/051012 24.03.2005		FOR FURTHER ACTION See paragraph 2 below	
		(day/month/year)	Priority date (day/month/year) 30.03.2004
ternational Patent Classification (IPC) or 602F1/01, D03D15/00, D02G3/44	both national classification	n and IPC	
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		egard to novelty, inventi	ve step and industrial applicability
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Name and mailing address of the ISA:

Ammerlahn, D

European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465

Telephone No. +49 89 2399-7028



Form (PCT/ISA/237) (Cover Sheet) (January 2004)

International application No. PCT/IB2005/051012

	Box N	o. I	Basis of the opinion
1.	the lan	iguag	to the language , this opinion has been established on the basis of the international application in je in which it was filed, unless otherwise indicated under this item.
	☐ Tì la: (u	nis op ngua Inder	pinion has been established on the basis of a translation from the original language into the following ge , which is the language of a translation furnished for the purposes of international search Rules 12.3 and 23.1(b)).
2.	With re	egaro sary	d to any nucleotide and/or amino acid sequence disclosed in the international application and to the claimed invention, this opinion has been established on the basis of:
	a. type	e of n	naterial:
		a s	equence listing
		tab	ele(s) related to the sequence listing
	b. for	nat o	of material:
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		in (computer readable form
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		fil€	ed together with the international application in computer readable form.
			rnished subsequently to this Authority for the purposes of search.
;	ļ	In adhas b	dition, in the case that more than one version or copy of a sequence listing and/or table relating thereto been filed or furnished, the required statements that the information in the subsequent or additional es is identical to that in the application as filed or does not go beyond the application as filed, as opriate, were furnished.
	4. Addi	itiona	I comments:
	Box	No.	II Priority
	1. 🗵	The does requ	validity of the priority claim has not been considered because the International Searching Authority so not have in its possession a copy of the earlier application whose priority has been claimed or, where the priority has been established on the supplication of that earlier application. This opinion has nevertheless been established on the supplication that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
	2. 🗆		s opinion has been established as if no priority had been claimed due to the fact that the priority claim been found invalid (Rules 43 <i>bis</i> .1 and 64.1). Thus for the purposes of this opinion, the international g date indicated above is considered to be the relevant date.
	3. Add	dition	al observations, if necessary:

International application No. PCT/IB2005/051012

Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

1-38

No: Claims

Inventive step (IS)

Yes: Claims

1-38

No: Claims

Industrial applicability (IA)

Yes: Claims

1-38

No: Claims

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43*bis*.1 and 70.10) and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

Cited Documents

D1: US-A-6 096 666 (JACHIMOWICZ ET AL), 1 August 2000;

D2: EP-A-1 207 140 (LUCENT TECHNOLOGIES INC), 22 May 2002;

D3: US-A-5 906 004 (LEBBY ET AL), 25 May 1999.

D4: EP-A-1 482 352 (AGILENT TECHNOLOGIES INC), 1 December 2004.

Item V

- The international application concerns an optical fibre the colour of which is 1 electrically switchable; the optical fibre is suitable for inclusion in a fabric or garment.
- Closest prior art D1 discloses in Figures 3 and 4 an optical fibre comprising 2
 - an elongated core having a core axis;
 - a substance having an electrically modulatable optical characteristic, covering a b) portion of the core; and
 - an electrical stimulation means adapted to produce an electric field arranged to C) electrically induce a change in the optical characteristic of the substance, thereby changing the visual appearance of the optical fibre.
- Independent claim 1 furthermore defines that the electrical stimulation means is 3 arranged such that the electric field extends in a direction substantially parallel to the core axis or in a direction extending substantially circumferentially about the core axis.
 - Independent claim 17 furthermore defines that the electrical stimulation means comprises a first and a second electrode pair disposed in the same off-axis plane and arranged such that the electric field extends in a direction substantially parallel to the core axis or in a direction extending substantially transversely to the core axis.
- In D1, the electrodes are arranged such that the electric field is directed radially to the 4 core axis. An electrode arrangement which provides an electric field directed parallel to the core axis or in a direction extending circumferentially about the core axis is not

disclosed in the available prior art.

Figure 5B of D2 discloses an electrical stimulation means comprising two pairs of electrodes which provide an electric field extending substantially transversely to the core axis. However, these electrode pairs are arranged on a circle around the core axis. An arrangement of two electrode pairs in the same off-axis plane is not suggested by the available prior art.

- Therefore, the combination of features of claims 1 and 17 is neither known from nor suggested in the prior art and the subject-matter of claims 1 and 17 appears to be novel and inventive.
- Dependent claims 2-16 and 18-38 are directed to advantageous embodiments of the devices of claims 1 and 17 and therefore are regarded as being novel and inventive either.
- 7 The industrial applicability of claims 1-38 is self-evident.
- Independent claims 1 and 17 are not in the two-part form (Rule 6.3(b) PCT) based on document D1, and documents D1-D3 are not acknowledged in the description (Rule 5.1(a)(ii) PCT). Furthermore, reference signs to the Figures are missing in the claims (Rule 6.2(b) PCT).

Item VI

1 Document D4 could eventually become relevant in the European Phase.

PATENT COOPERATION TREATY

	ERNATIONAL SEARCHING AUTHORITY 0:		PCT			
see form PCT/ISA/220		WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43 <i>bis</i> .1)				
			Date of mailing (day/month/year) se	e form PCT/ISA/210 (second sheet)		
Applicant's or agent's file reference see form PCT/ISA/220		FOR FURTHER ACTION See paragraph 2 below				
International application No. International filing date PCT/IB2005/051012 24.03.2005		(day/month/year)	Priority date (day/month/year) 30.03.2004			
nterr	national Patent Classification (IPC) o F1/01, D03D15/00, D02G3/44	both national classification	n and IPC			
ilqq 10	icant NINKLIJKE PHILIPS ELECTR	ONICS N.V.				
	This opinion contains indica	tions relating to the fo	ollowing items:			
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Name and mailing address of the ISA:

9)

European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 Authorized Officer

Ammerlahn, D

Telephone No. +49 89 2399-7028



International application No. PCT/IB2005/051012

Box No	
the lan	gard to the language , this opinion has been established on the basis of the international application in guage in which it was filed, unless otherwise indicated under this item.
lar (u	is opinion has been established on the basis of a translation from the original language into the following anguage , which is the language of a translation furnished for the purposes of international search and response to the purpose of the purpose o
2. With renecess	egard to any nucleotide and/or amino acid sequence disclosed in the international application and sary to the claimed invention, this opinion has been established on the basis of:
a. type	of material:
	a sequence listing
	table(s) related to the sequence listing
b. form	nat of material:
	in written format
	in computer readable form
c. time	e of filing/furnishing:
	contained in the international application as filed.
	filed together with the international application in computer readable form.
	furnished subsequently to this Authority for the purposes of search.
ŀ	n addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Addit	ional comments:
	No. II Priority
•	The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
	This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43 <i>bis.</i> 1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Add	itional observations, if necessary:

International application No. PCT/IB2005/051012

Box No. V Reasoned statement under Rule 43bis.1(a)(l) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

1-38

No:

Claims

Inventive step (IS)

Yes: Claims

1-38

No: Claims

Industrial applicability (IA)

Yes: Claims

1-38

No: Claims

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43*bis*.1 and 70.10) and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

PCT/IB2005/051012

Cited Documents

D1: US-A-6 096 666 (JACHIMOWICZ ET AL), 1 August 2000;

D2: EP-A-1 207 140 (LUCENT TECHNOLOGIES INC), 22 May 2002;

D3: US-A-5 906 004 (LEBBY ET AL), 25 May 1999.

D4: EP-A-1 482 352 (AGILENT TECHNOLOGIES INC), 1 December 2004.

Item V

- The international application concerns an optical fibre the colour of which is 1 electrically switchable; the optical fibre is suitable for inclusion in a fabric or garment.
- Closest prior art D1 discloses in Figures 3 and 4 an optical fibre comprising 2
 - an elongated core having a core axis;
 - a substance having an electrically modulatable optical characteristic, covering a b) portion of the core; and
 - an electrical stimulation means adapted to produce an electric field arranged to electrically induce a change in the optical characteristic of the substance, thereby changing the visual appearance of the optical fibre.
- Independent claim 1 furthermore defines that the electrical stimulation means is 3 arranged such that the electric field extends in a direction substantially parallel to the core axis or in a direction extending substantially circumferentially about the core axis.
 - Independent claim 17 furthermore defines that the electrical stimulation means comprises a first and a second electrode pair disposed in the same off-axis plane and arranged such that the electric field extends in a direction substantially parallel to the core axis or in a direction extending substantially transversely to the core axis.
- In D1, the electrodes are arranged such that the electric field is directed radially to the 4 core axis. An electrode arrangement which provides an electric field directed parallel to the core axis or in a direction extending circumferentially about the core axis is not

disclosed in the available prior art.

Figure 5B of D2 discloses an electrical stimulation means comprising two pairs of electrodes which provide an electric field extending substantially transversely to the core axis. However, these electrode pairs are arranged on a circle around the core axis. An arrangement of two electrode pairs in the same off-axis plane is not suggested by the available prior art.

- Therefore, the combination of features of claims 1 and 17 is neither known from nor suggested in the prior art and the subject-matter of claims 1 and 17 appears to be novel and inventive.
- 6 Dependent claims 2-16 and 18-38 are directed to advantageous embodiments of the devices of claims 1 and 17 and therefore are regarded as being novel and inventive either.
- 7 The industrial applicability of claims 1-38 is self-evident.
- Independent claims 1 and 17 are not in the two-part form (Rule 6.3(b) PCT) based on document D1, and documents D1-D3 are not acknowledged in the description (Rule 5.1(a)(ii) PCT). Furthermore, reference signs to the Figures are missing in the claims (Rule 6.2(b) PCT).

Item VI

1 Document D4 could eventually become relevant in the European Phase.